

## REMARKS/ARGUMENTS

Claims 1-20 are resubmitted. Claims 1-20 have been amended. No claims were withdrawn. No new claims have been added.

## SUPPORT FOR APPLICANT'S AMENDMENTS

Applicant has amended multiple claims, including claim 1, to include the claim element, “*continuously displaying status information about the buffers to a user via a graphical user interface.*” Support for the provision of buffer status information over a graphical user interface can be found in Applicant’s specification at paragraphs [0083]-[0093] and Fig. 12. The relevant portion of Applicant’s specification at paragraph [0083] is reproduced below:

[0083] FIG. 12 is an illustration of a project status graph report 1200 in one embodiment of the present invention. In an embodiment of the present invention, the project status graph report 1200 can be accessed via a Web page over the Web using a Web browser. The graph 1200 depicts the progress of the project showing % buffer consumed on the y-axis 1210 and % chain complete on the x-axis 1212 ... (emphasis added)

Applicant has further amended multiple claims, including claim 1, to include the claim element, “*wherein the status information displayed for each project of the plurality of projects includes a buffer consumption percentage and a completion percentage for a current longest chain of tasks in the project.*” Support for the provision of buffer status information including buffer consumption and completion percentage of the current longest chain of tasks in the project can be found in Applicant’s specification at paragraphs [0083]-[0093]. The relevant portion of Applicant’s specification at paragraphs [0086]-[0088] is reproduced below:

[0086] In one example, the % chain complete of the x-axis 1212 is calculated

as:

[0087] % chain complete = (original critical chain duration - remaining duration of the longest chain) / original critical chain duration

[0088] Original critical chain duration is the time needed to complete the longest chain of tasks including planned availability of resources. The remaining duration of the longest chain is the time needed to finish the longest remaining chain of tasks including planned availability of resources at the current time in the project history. (emphasis added)

Applicant has further amended multiple claims, including claim 1, to include the claim element, “*providing to the user a graphical user interface for managing allowing the user to manage the buffers.*” Support for the provision of a buffer management tool over a graphical user interface can be found in Applicant’s specification at paragraph [0019]. The relevant portion of Applicant’s specification at paragraph [0019] is reproduced below:

[0019] In another embodiment of the present invention, a network interface is available to the user for allowing the user to manage the buffers across the plurality of projects, providing the user with information associated with buffers for the plurality of projects and providing the user with task prioritization for any task of the plurality of projects. The network interface can be a Web or Internet interface. (emphasis added)

Applicant has further amended multiple claims, including claim 2, to include the claim element, “*status information displayed for each project of the plurality of projects further includes at least one of a project buffer consumption percentage and a milestone buffer consumption percentage.*” Support for the display of buffer status information including a project buffer consumption percentage and/or a milestone buffer consumption percentage can be found in Applicant’s specification at paragraphs [0089]-[0091]. The relevant portion of Applicant’s specification at paragraphs [0089]-[0091] is reproduced below:

[0089] In another example, the % chain complete of the x-axis 1212 is calculated differently for milestone chains, wherein a chain of tasks/projects leads to a project milestone, and feeding chains, wherein a chain of tasks/projects feeds into

another set of tasks/projects. In this example, the % chain complete of the x-axis 1212 is calculated as:

[0090] % chain complete = (original duration of longest path including activity and resource dependencies on critical chain - remaining duration of the longest path including activity and resource dependencies on critical chain) / original duration of longest path including activity and resource dependencies on critical chain

[0091] This calculation takes into account the fact that chains feeding into milestones often change continuously. To account for this phenomena, the milestone chain includes activity dependencies and only resource dependencies on the critical chain.

[0092] In another example, the % buffer consumed of the y-axis 1210 is calculated by calculating the consumption of the project buffer by the chain feeding into the buffer. If there are multiple chains feeding into the project buffer, the worst value is taken. Since a project buffer can be consumed by any chain of activities and resource dependencies that are linked to this buffer, the % buffer consumed calculation considers the status of the worst chain (which translates into the highest buffer penetration of all chains feeding into the buffer). (emphasis added)

Applicant has further amended multiple claims, including claim 5, to include the claim element, “*wherein task prioritization for a task is calculated based on a buffer consumption percentage of a longest chain to which the task belongs and based on a chain completion percentage of the longest chain to which the task belongs.*” Support for the calculation of task priority based on buffer consumption and chain completion can be found in Applicant’s specification at paragraphs [0042] and [0102]. The relevant portion of Applicant’s specification at paragraphs [0042] and [0102] is reproduced below:

[0042] One advantage of the present invention is the calculation of task priorities while taking a multitude of factors into account, such as buffer priorities, the amount of buffer consumed by a task, chain lengths, maximum buffer consumption, the amount of the current chain that has been completed, amount of buffer recovered, and other factors. Another advantage of the present invention is the calculation of task priorities among multiple projects ...

[0102] In step 1404, for each task, all buffers fed by each task are identified. In other words, all task-buffer pairs are identified. In step 1406, the percent of penetration of each task into a buffer into which it feeds is calculated. I.e., the buffer penetration of each task-buffer pair is calculated. The percent of buffer penetration of any task-buffer pair is equal to the percent of buffer penetration of the chain to

which the corresponding task belongs, into the buffer of the task-buffer pair. If the task of the task-buffer pair belongs to multiple chains, the worst buffer penetration value is taken. Also in step 1406, the percent chain length complete for each task-buffer pair is calculated. Note that this calculation takes the percent chain length complete of the longest chain that has one endpoint at the buffer and contains the task (emphasis added)

Applicant has further amended multiple claims, including claims 6-8, to include the claim element, “*wherein task prioritization for a task is calculated based on relative buffer priority,*” “*... relative project priority,*” and “*... relative milestone priority.*” Support for the calculation of task priority based on relative buffer priority, relative project priority and/or relative milestone priority can be found in Applicant’s specification at paragraphs [0077] and [0094]. The relevant portion of Applicant’s specification at paragraphs [0077] and [0094] is reproduced below:

[0077] The present invention provides multi-project buffer management that allows organizations to use buffer management in a complex environment, where resources are shared across projects. Task priorities are driven by a combination of relative project priority, relative milestone priority, and buffer consumption by each task, requiring a complex set of algorithms. The buffer management process is further Web enabled so that project managers can configure buffering policies over the Web, submit project plans with buffers over the Web, do task updates over the Web, run buffer management functions using the Web, and acquire buffer reports over the Web ...

[0094] Returning to FIG. 10, also shown is the provision of task prioritization 1004 during execution of the project. Task prioritization 1004 is a process of the present invention whereby task priorities over multiple projects are calculated. The present invention calculates the task priority for every task of the multitude of projects and thus provides a true multi-project task priority, as the calculation is based on multiple factors such as relative project priority, relative buffer priority, buffer consumption rates and other factors. The calculation of task priorities across multiple projects allows managers to see a complete picture of the entire project and thus see the true priority of a particular task ... (emphasis added)

### **REJECTION UNDER 35 U.S.C. § 102(A)**

In the Non-Final Office Action, the Examiner rejected claims 1, 5, 9, 13-15 and 17 under 35 U.S.C. § 102(a) as being anticipated by Leach, “Critical Project Management Improves Project Performance,” API, 1997 (“Leach1” hereinafter”) AND Leach, “Schedule and Cost Buffer Sizing,” API, 2002 (“Leach2” hereinafter”). Applicant respectfully disagrees and overcomes this rejection.

#### **A. Improper Use of Two References in a 35 U.S.C. § 102(a) Rejection**

The Examiner states on p. 2 of the Office Action that claims 1, 5, 9, 13-15 and 17 are rejected under 35 U.S.C. § 102(a) by a combination of the Leach1 and Leach2 references. Note that the publication dates of each Leach reference – 1997 and 2002, respectively – are printed on the first page of each reference. The Examiner states on pp. 2-5 of the Office Action that certain elements of claims 1, 5, 9, 13-15 are present in Leach1 while other elements of the claims are present in Leach2. The Examiner doesn’t provide any explanation of why the two references, with widely divergent publication dates, were combined or why it is proper to combine two references in a 35 U.S.C. § 102 rejection.

In rejecting claims under 35 U.S.C. § 102, “[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 18 1375 (Fed. Cir. 2005). Notable aspects of this cited case law is the discussion of a single reference. In this case, Examiner Vo has combined two references to assert a rejection under 35 U.S.C. § 102. This is clearly improper under *Perricone* and therefore the rejection should be withdrawn.

Further, M.P.E.P. § 2131.01 states:

“Normally, only one reference should be used in making a rejection under 35

U.S.C. 102. However, a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to:

- (A) Prove the primary reference contains an "enabled disclosure;"
- (B) Explain the meaning of a term used in the primary reference; or
- (C) Show that a characteristic not disclosed in the reference is inherent.

In the rejection of claims 1, 5, 9, 13-15, the Examiner does not make any mention of the criteria for (A), (B) or (C) above. In the telephonic interview with the Examiner on August 31, 2009, however, the Examiner asserted on the record that he intended to assert the criteria for (B) or (C) of M.P.E.P. § 2131.01 above. Nowhere in the Non-Final Office Action, however, does the Examiner make any mention of using a secondary reference to explain the meaning of a term in the primary reference (criteria (B) above) or using a secondary reference to show that a characteristic not disclosed in the reference is inherent (criteria (C) above). Therefore, the Examiner has not invoked M.P.E.P. § 2131.01 in the written record.

Thus, because Examiner Vo has improperly combined two references to assert a rejection under 35 U.S.C. § 102, the rejection of claims 1, 5, 9, 13-15 and 17 should be withdrawn.

**B. Claim Element “Continuously displaying status information ...”**

Applicant has amended the independent claims 1, 5, 9, 13 and 17 to include the claim element "*continuously displaying status information about the buffers to a user via a graphical user interface, wherein the status information displayed for each project of the plurality of projects includes a buffer consumption percentage and a completion percentage for a current longest chain of tasks in the project.*" Neither Leach1 nor Leach2 discloses the displaying of buffer status information via a graphical user interface. Further, neither Leach1 nor Leach2 discloses the displaying of buffer status information, wherein the information displayed includes buffer consumption percentages for each project (of the plurality of projects) and a completion percentage for a current longest chain of tasks in each project.

The Examiner states on p. 3 of the Office Action that the concept of displaying buffer status information to a user is found at p. 8 of Leach1. The relevant portion of p. 8 of Leach1 is reproduced below:

CCPM protects the critical chain from potential delays by subordinating critical chain feeding paths; placing an aggregated Feeding Buffer on each path that feeds the critical chain. This includes paths that merge with the critical chain at the end of the project. The feeding buffer provides a measurement and control mechanism to protect the critical chain, as described below. Figure 5 illustrates how the buffers absorb the late paths.

This innovation immunizes the critical chain from potential delays in the feeding paths. It also provides a means to measure the feeding paths, while keeping focus on the critical chain.

At best, the citation above discloses the use of feeding buffers by a computer program to measure and control the critical chain of a project. The Examiner, however, does not explain how the citation above discloses the displaying of buffer status information to a user, such as through a graphical user interface. Thus, the Examiner has failed in his burden to show how the citation discloses displaying status information about buffers to a user, as claimed by Applicant.

For this additional reason, the 35 U.S.C. § 102(a) rejection of claims 1, 5, 9, 13-15 and 17 should be withdrawn.

#### **C. Claim Element “Modifying task prioritization ...”**

Applicant has amended the independent claims 1, 5, 9, 13 and 17 to include the claim element “*continuously modifying task prioritization for any task of the plurality of projects based on the status information about the buffers, wherein task prioritization is calculated across the plurality of projects so as to accommodate the critical chain, and wherein task prioritization for a task is calculated based on a buffer consumption percentage of a longest chain to which the task belongs and based on a chain completion percentage of the longest chain to which the task belongs*” Neither Leach1 nor Leach2 discloses the automatic modification of task prioritization based on buffer

status. Further, neither Leach1 nor Leach2 discloses the automatic modification of task prioritization based on buffer status, wherein task prioritization is calculated based on buffer consumption of a longest chain to which the task belongs and a chain completion percentage of the longest chain.

The Examiner states on p. 4 of the Office Action that this claim element is found at Leach1 p. 12, Leach2 lines 1-12 of p. 12 and Leach2 p. 31.

The relevant portion of p. 12 of Leach1 is reproduced below:

The improved measurement system for Critical Chain Project Management follows the practice established by Dr. Goldratt for production operations. It uses buffers (that is, time) to measure activity chain performance. You size the buffers based on the length of the activity chain they protect. Buffer sizing uses the uncertainty in the duration of the Critical Chain activities to size the Project Buffer. Likewise, uncertainty in the duration of the feeding chain activities determines the size of each Critical Chain Feeding Buffer. CCPM sets explicit action levels for decisions. The decision levels are in terms of the buffer size, measured in days:

1. Within the first third of the buffer: no action.
2. Penetrate the middle third of the buffer: assess the problem and plan for action.
3. Penetrate the third third: initiate action.

These measures apply to both the Project Buffer and the Critical Chain Feeding buffers. Figure 9 shows an example of using the buffers. Project teams monitor the Project Buffer (PB) and each Critical Chain Feeding Buffer (CCFB) at the appropriate time intervals for the project, usually weekly but at least monthly. For this tool to be fully useful, the buffer monitoring time must be at least as frequent as one third of the total buffer time. If the buffers are negative (i.e., latest activity on the chain is early relative to schedule date) or less than one third of the total buffer late (e.g., less than 10 days if the total buffer is 30 days), you do not need to take action. If extended durations penetrate the buffer between 1/3 and 2/3, the project team should plan actions for that chain to accelerate the current or future tasks and recover the buffer. If the activity performance penetrates the buffer by more than 2/3 of the buffer size, the project team should take the planned action. Through this mechanism, buffer management provides a unique anticipatory project management tool with clear decision criteria. (emphasis added)

At best, the citation above discloses the use of current buffer status by a person

or user to decide whether to “accelerate the current or future tasks” or “take no action.” The Examiner, however, does not explain how the citation above discloses the automatic modification of task prioritization by a computer program based on buffer status. Applicant’s claim 13, for example, is directed to a “server” that performs the step of “*continuously modifying task prioritization*” and therefore the step is performed automatically by a computer program with no human input. In another example, Applicant’s claim 17 is directed to a “memory storage device including computer instructions” that perform the step of “*continuously modifying task prioritization*” and therefore the step is performed automatically by a computer program with no human input. By contrast, the citation of Leach above discloses the use of current buffer status by a person or user to decide whether to “accelerate the current or future tasks” or “take no action.” This is vastly different from the automatic modification of task prioritization by a computer program executing on a computer.

The citation of Leach above also does not disclose any task prioritization calculation based on buffer consumption of a longest chain to which the task belongs and does not disclose any task prioritization calculation based on a chain completion percentage of the longest chain to which the task belongs. Thus, the Examiner has failed in his burden to show how the citation discloses the claim element above, as claimed by Applicant.

Next, Leach2 lines 1-12 of p. 12 is reproduced below:

1. Feeding buffers placed at the end of chains of activities that merge into the critical chain.
2. Run rules that specify work on a project task must start when the activity is available and continue at 100% until complete.
3. Assured in-project resource leveling through the definition of the critical chain.
4. Across project resource leveling through project priority setting and staggering of project starts to the capacity of the constraining resource with a capacity buffer.
5. Buffer management, which provides all project resources a priority tool enable focused work on project tasks.

This balance of this paper identifies eleven factors (there are probably more<sup>1</sup>) that influence project performance to schedule and cost baseline, evaluates the impact on necessary schedule and cost buffers, and provides recommendations for bias corrections. (emphasis added)

At best, the citation above discloses the use of a rule that specifies work on a task must start at a particular time. The citation also discloses "buffer management which provides all project resources a priority tool enable focused work on project tasks." As best as this unexplained sentence can be understood, this citation discloses the use of a priority tool to determine on which tasks a user should focus. The Examiner, further, does not explain how the citation above discloses the automatic modification of task prioritization based on buffer status. Again, the citation above does not disclose any task prioritization calculation based on buffer consumption of a longest chain to which the task belongs and does not disclose any task prioritization calculation based on a chain completion percentage of the longest chain to which the task belongs. Thus, the Examiner has failed in his burden to show how the citation discloses the claim element above, as claimed by Applicant.

Next, Leach2 p. 31 is reproduced below:

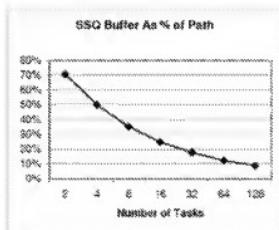


Exhibit 3: SSQ Buffer Variation with Number of Tasks

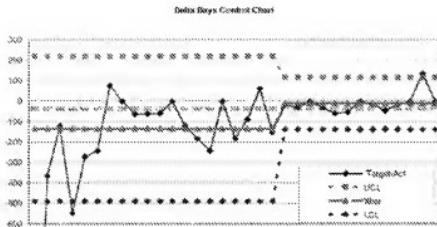


Exhibit 4: Real Project Schedule Variations Illustrates Wide Range

At best, the citation above discloses a relationship between buffer variation and number of tasks. The Examiner, further, does not explain how the citation above discloses the automatic modification of task prioritization based on buffer status. Again, the citation above does not disclose any task prioritization calculation based on buffer consumption of a longest chain to which the task belongs and does not disclose any task prioritization calculation based on a chain completion percentage of the longest chain to which the task belongs. Thus, the Examiner has failed in his burden to show how the citation discloses the claim element above, as claimed by Applicant.

For this additional reason, the 35 U.S.C. § 102(a) rejection of claims 5, 13-15 and 17 should be withdrawn.

#### REJECTION UNDER 35 U.S.C. § 103(A)

In the Non-Final Office Action, the Examiner rejected claims 2-4, 6-8, 10-12, 16 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Leach1, Leach2 and Microsoft Solution Framework, “MSF Project Management Discipline,” P. 1-31, 6-2002 (hereinafter “MSF”). Applicant respectfully disagrees and overcomes this rejection.

Claims 2-4, 6-8, 10-12, 16 and 18-20 depend from independent claims 1, 5, 9, 13 and 17, respectively, and Applicant incorporates herein the arguments previously advanced in traversing the imposed rejection of claims 1, 5, 9, 13 and 17 under 35

U.S.C. § 102(a) based upon Leach1 and Leach2. The tertiary reference to MSF does not cure the argued deficiencies of Leach1 and Leach2. Accordingly, even if one having ordinary skill in the art were motivated to modify Leach1 and Leach2 in view of MSF, the proposed combination would not yield the claimed invention. Applicant, therefore, respectfully submits that the imposed rejection of claims 2-4, 6-8, 10-12, 16 and 18-20 under 35 U.S.C. § 103(a) for obviousness based upon Leach1, Leach2 and MSF is not viable. Thus, the Applicant respectfully requests withdrawal of the rejection of claims 2-4, 6-8, 10-12, 16 and 18-20 under 35 U.S.C. § 103(a).

**CONCLUSION**

Reconsideration and withdrawal of the Office Action with respect to claims 1-20 is requested. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

In the event the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

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